

662707-14E02450

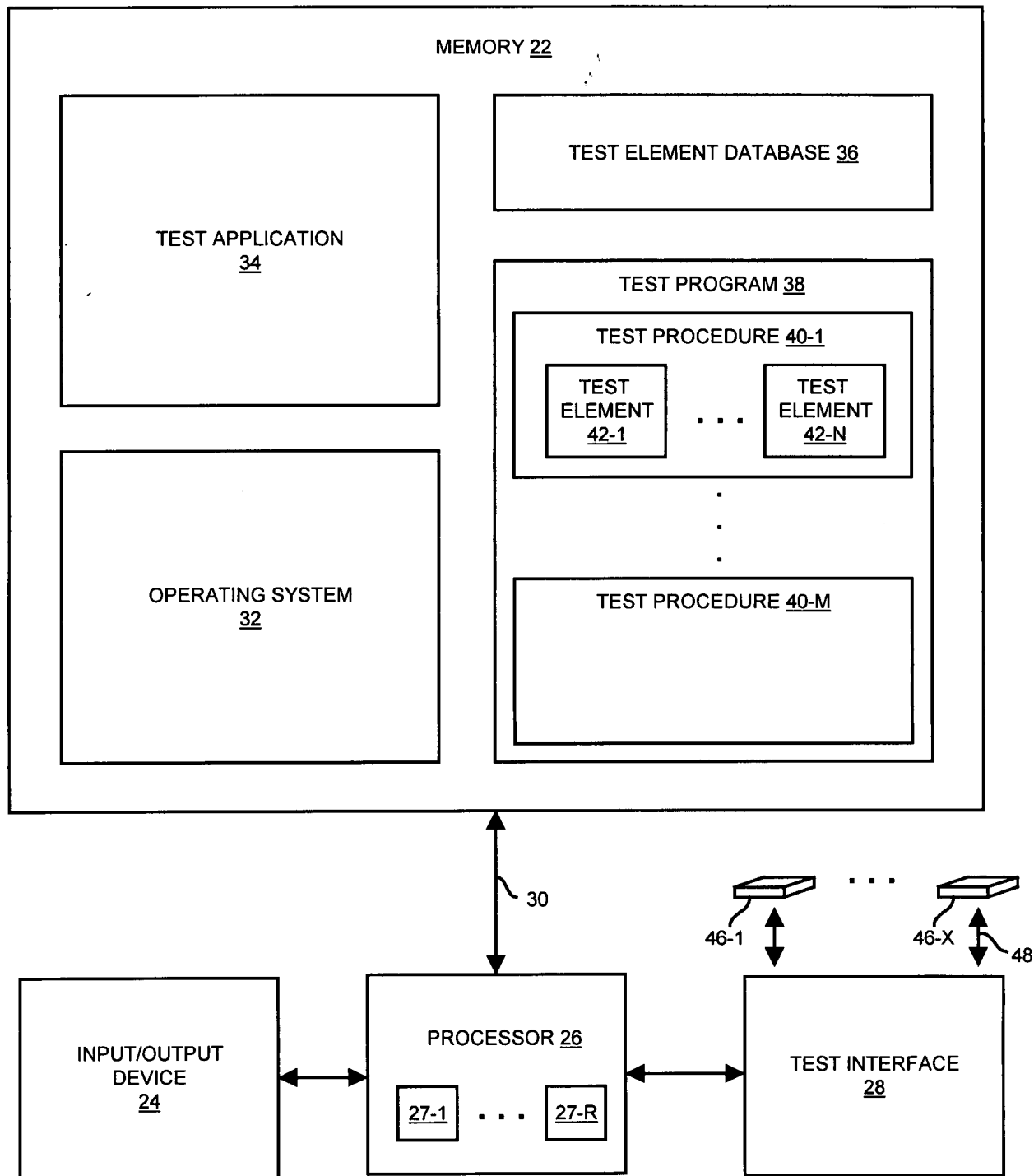


FIG. 1

5044-102450

INCREASING  
FLEXIBILITY,  
INCREASING  
COMPLEXITY

TEMPLATE-BASED TEST PROGRAM  
52

TEST PROGRAM INCLUDING TEST  
PROCEDURE FORMED BY  
MULTIPLE TEST ELEMENTS 38

CODE-BASED TEST PROGRAM 50

INCREASING  
EASE OF USE

FIG. 2

662707-4E02T450

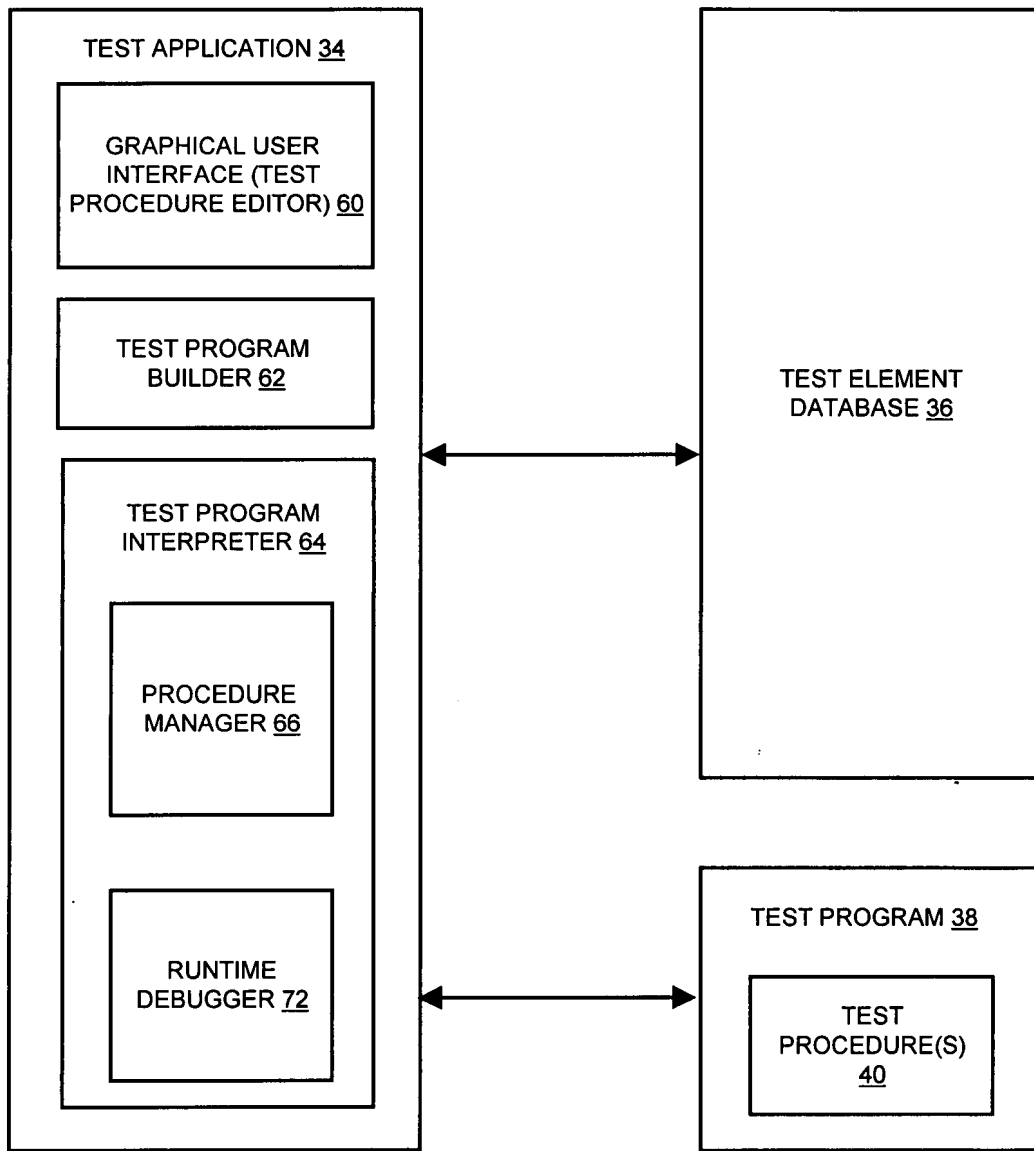


FIG. 3

0044034-1099

82 {  
84 {

80

86

88

90

92

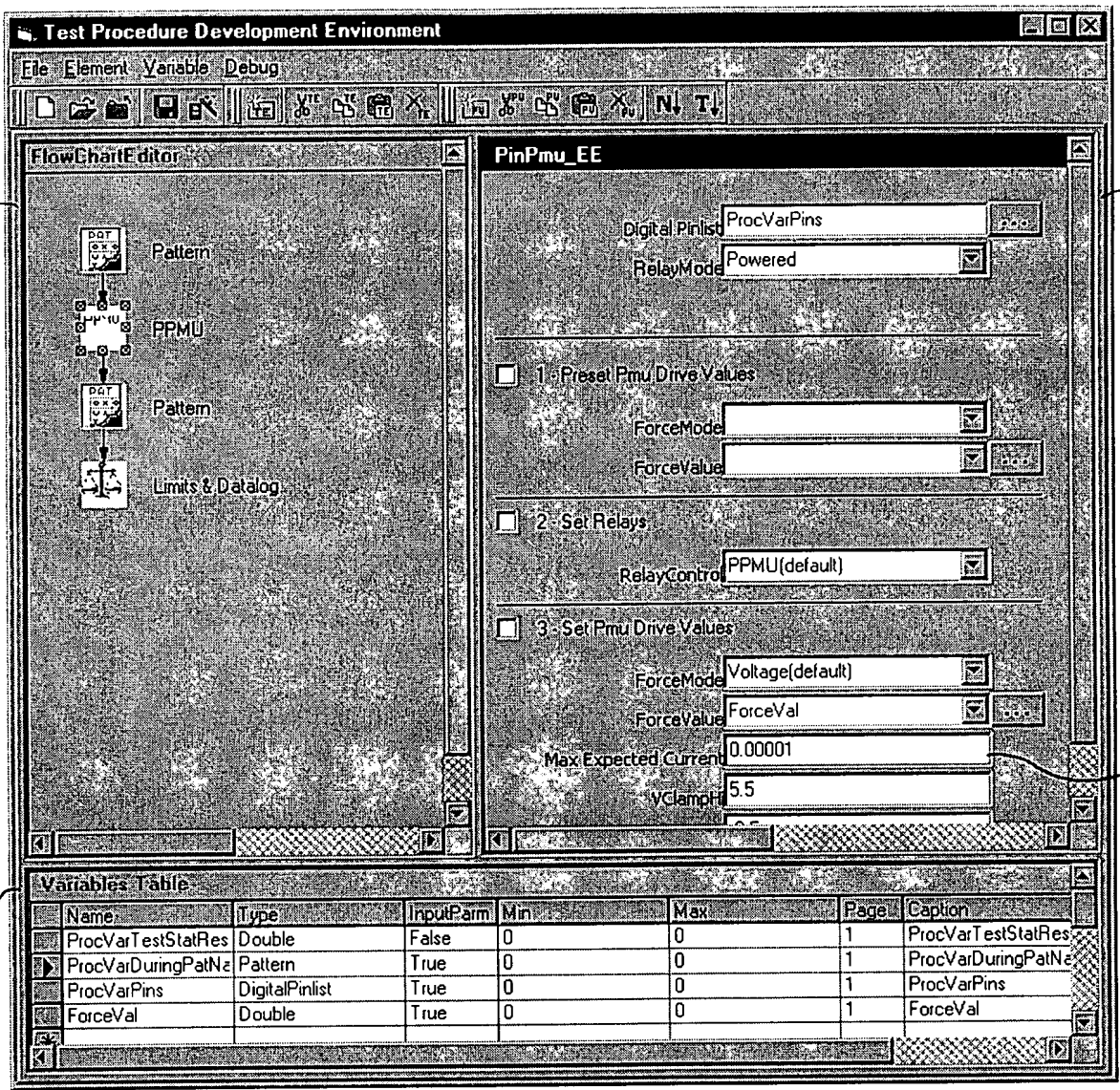


FIG. 4

6621074E02460

**Test Procedure Development Environment**

File Element Variable Debug

82 { 84 {

**FlowChartEditor**

86 {

Pattern

PPMU

Pattern

Limits & Datalog

**Limits\_EE**

94

96

☐ 1. Limits

Results Variable: ProcVarTestStatResults

Limits Mode: CompareAgainstEachDataPoint

☐ HiLimit: 0.00001

☐ LoLimit: -0.0000001

Units: Amp

☐ 2. Failure Determination

Set Fail Condition: BeyondLimits(default)

Fail: Datalog Text: LeakageTestFailed

Pass: Datalog Text: LeaktestPASS

☐ 3. Site Management

Remove Failing Sites: Yes(default)

**Variables Table**

Name	Type	InputParam	Min	Max	Page	Caption
ProcVarTestStatRes	Double	False	0	0	1	ProcVarTestStatRes
ProcVarDuringPatNe	Pattern	True	0	0	1	ProcVarDuringPatNe
ProcVarPins	DigitalPinlist	True	0	0	1	ProcVarPins
ForceVal	Double	True	0	0	1	ForceVal

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FIG. 5

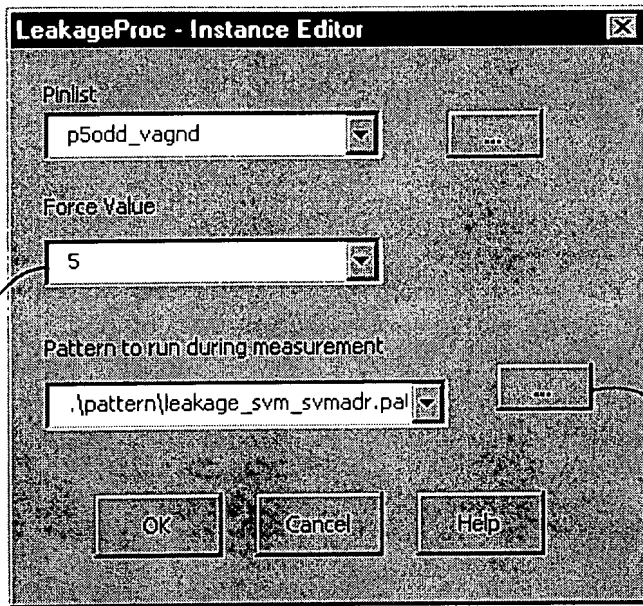


FIG. 6

662107-4E02T450

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Microsoft Visual Basic - Element.xla [running] - [PinPmu_E [Code]]
File Edit View Insert Format Debug Run Tools Window Help
[Icons]
[General] TestElement

'3 - Set Drive Values
If (SetForceValue.ArgumentStr <> TL_C_EMPTYSTR) And
(SetMagnitudeValue.ArgumentStr <> TL_C_EMPTYSTR) Then
  With TheHdw.pins(PinList.ArgumentValue)
    If CStr(SetForceMode.ArgumentValue) = TL_C_CURRENT Then
      'force current
      If CStr(VClampLo.ArgumentValue) <> TL_C_EMPTYSTR Then
        Call .PinLevels.ModifyLevel(chVCL, Cdbl(Val(VClampLo.ArgumentValue)))
      End If
      If CStr(VClampHi.ArgumentValue) <> TL_C_EMPTYSTR Then
        Call .PinLevels.ModifyLevel(chVCH, Cdbl(Val(VClampHi.ArgumentValue)))
      End If
      If CStr(SetRelayControl.ArgumentValue) <> tl_GetIndexof(TL_C_PPRCPFSTR) Then
        te_IrangeIdx = tl_te_GetBestRange(SetForceValue.ArgumentValue, TheHdw.PPMU.ForceIRangeList,
        'set the Ppmu in a current forcing mode, and voltage measure mode
        .PPMU.ForceCurrent(te_IrangeIdx) = SetForceValue.ArgumentValue
        If (VClampLo.ArgumentStr <> TL_C_EMPTYSTR) Or (VClampHi.ArgumentStr <> TL_C_EMPTYSTR) Then
          'if clamps are used, then the PE relay is closed, and this then
          ' requires that the current loads be set to zero.
          Call .PinLevels.ModifyLevel(chISource, 0)
          Call .PinLevels.ModifyLevel(chISink, 0)
        End If
      End If
      If CStr(SetRelayControl.ArgumentValue) = tl_GetIndexof(TL_C_PPRCPFSTR) Then
        te_IrangeIdx = tl_te_GetBestRange(0, TheHdw.PPMU.ForceIRangeList, True)
        ' Override Functional Load levels on Pin Electronics
        ' set the PPMU itself to force 0A
        .PPMU.ForceCurrent(te_IrangeIdx) = 0#
        ' Modify programmed load on Pin Electronics
        If Cdbl(Val(SetForceValue.ArgumentValue)) > 0 Then
          ' set VT to ensure that load will be applied
          Call .PinLevels.ModifyLevel(chVT, TL_MAX_VT_LEVEL)
          ' set the load current
          Call .PinLevels.ModifyLevel(chISource, SetForceValue.ArgumentValue)
        Else
          ' set VT to ensure that load will be applied

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FIG. 7

662707 "4E02T4E0

662101-4E02T450

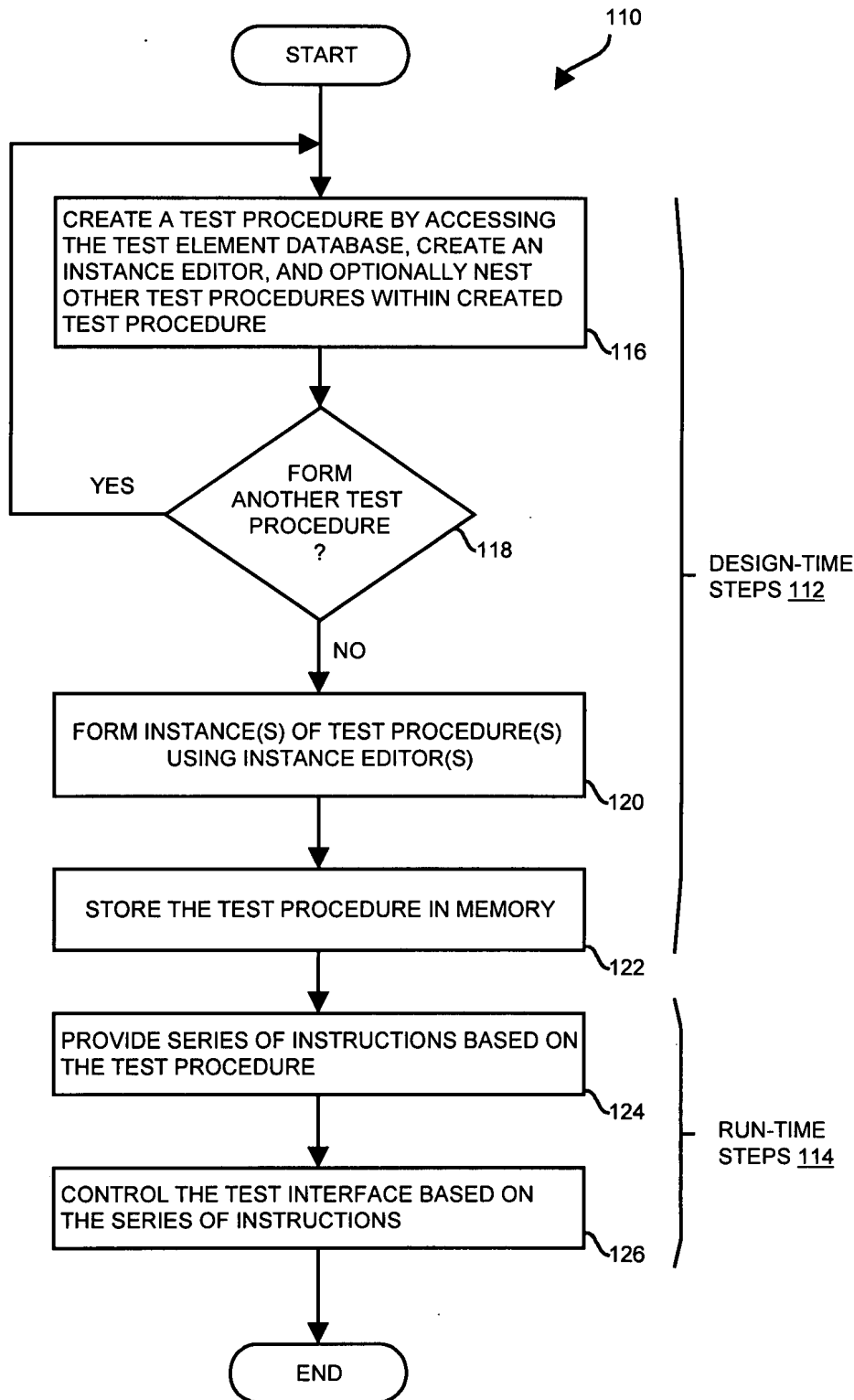


FIG. 8

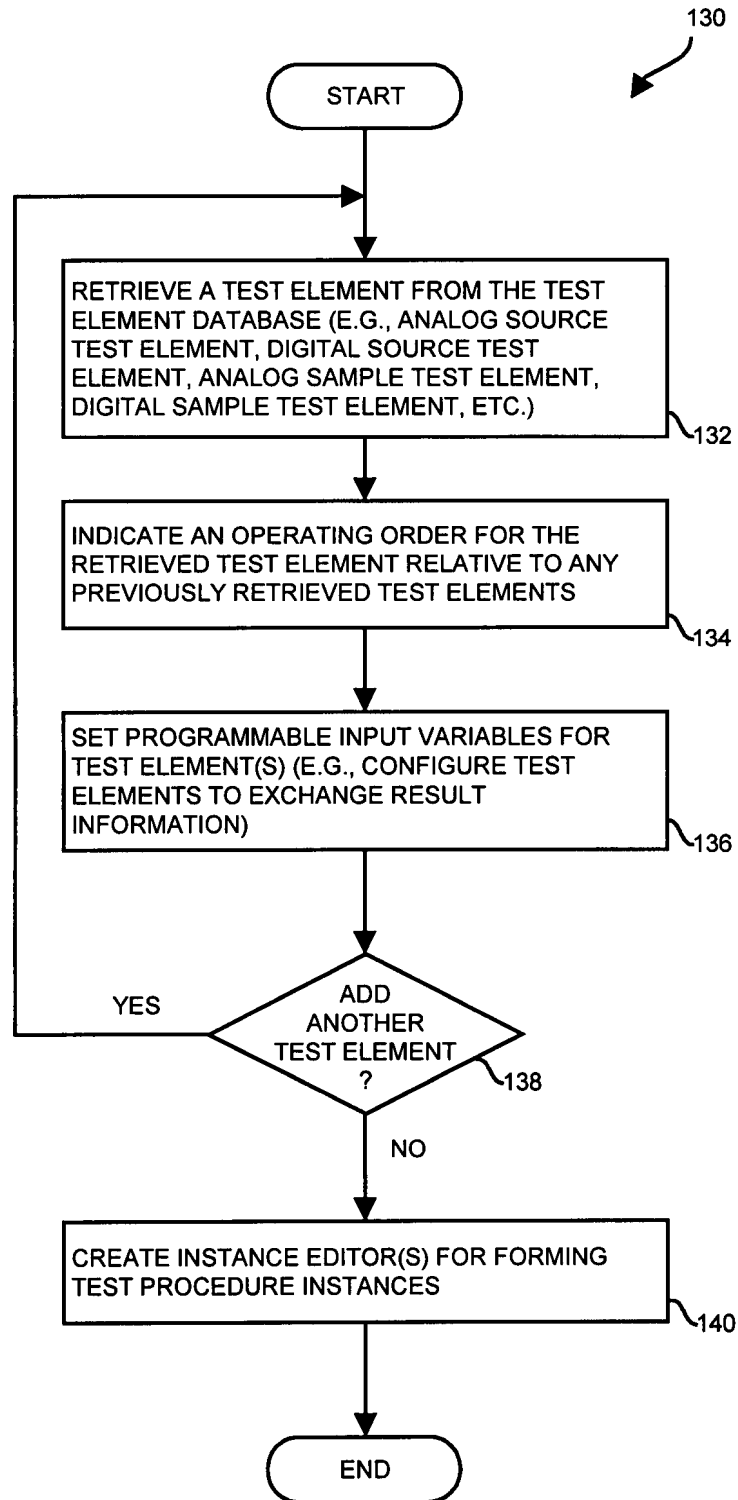


FIG. 9